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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,142

04/11/2005

Katrin Zschintzsch

CEDE 2139

5075

321 7590 12/11/2006

SENNIGER POWERS
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

WONG, EDNA

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary	Application No. 10/531,142	Applicant(s) ZSCHINTZSCH ET AL.	
	Examiner Edna Wong	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-55 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 30-55 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :April 11, 2005 and September 25, 2006.

Specification

The disclosure is objected to because of the following informalities:

page 1, it is suggested that a -- CROSS-REFERENCE TO RELATED APPLICATIONS -- be inserted into the specification.

page 9, line 32, "6 mg/Lbrightener" should be amended to -- 6 mg/L brightener --.

page 10, line 8, "6 mg/Lbrightener" should be amended to -- 6 mg/L brightener --.

page 10, line 27, "3 mg/Lbrightener" should be amended to -- 3 mg/L brightener -

Claim Objections

Claims 33-34, 44-45 and 48 are objected to because of the following informalities:

Claim 33

line 2, the word "comprises" should be amended to -- contains --. See claim 30, line 4.

Claim 34

line 2, the word "comprises" should be amended to -- contains --. See claim 30,

line 4.

Claim 44

line 2, the word "comprising" should be amended to -- containing --. See claim 40, line 1.

Claim 45

line 2, the word "comprising" should be amended to -- containing --. See claim 40, line 1.

Claim 48

line 2, the word "comprising" should be amended to -- containing --. See claim 40, line 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

I. Claims **30-39** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 30

line 3, it appears that "a substrate" is the same as the substrate recited in claim 30, line 2. However, it is unclear if it is. If it is, then it is suggested that the word "a" be amended to the word -- the --.

II. Claims 30-39 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the electrolytic deposition step.

Claim 30

line 1, recites "A method for electrolytic deposition". However, there is no electrolytic depositing step recited in the body of the claim. The "immersing" step recited in claim 1, line 3, does not necessarily mean an electrolytic deposit.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)

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may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims **30-55** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 11/105,947 (Zschintzsch et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application and the instant application are claiming common subject matter, as follows:

A method for electrolytic deposition of bronze onto a substrate, the method comprising: immersing a substrate in an aqueous acidic electrolyte containing: a) tin ions; b) copper ions; c) an alkylsulfonic acid; and d) a nonionic wetting agent; and

An aqueous acidic electrolyte containing: a) tin ions; b) copper ions; c) an alkylsulfonic acid; and d) a nonionic wetting agent.

The claims of the instant application fail to be patentably distinct from the claims of the copending application because the independent claims of the instant application recites similar limitations, either alone or in combination with their dependent claims, as that of the claims of the copending application wherein the claims of the instant application are encompassed by the claims of the copending application. Therefore, the claims would have been obvious variants over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Method

I. Claims **30-39** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **EP 1,001,054** ('054).

EP '054 teaches a method for electrolytic deposition of bronze (= a tin-copper alloy) [page 6, [0050]] onto a substrate (= any parts constituting electronic machines and equipment) [page 3, [[0010]], the method comprising:

immersing a substrate in an aqueous acidic electrolyte containing:

(a) tin ions (pages 2-3, [0014]);

(b) copper ions (page 3, [0015]);

(c) an alkylsulfonic acid (= an aliphatic sulfonic acid) [page 3, [0018]]; and

(d) an aromatic, nonionic wetting agent (= a nonionic surface active agent, e.g., polyoxyethylene β -naphthol ether) [page 4, [0034]].

The alkylsulfonic acid is present in the electrolyte at a concentration of from 140 to 382 g/L of electrolyte (= at least 50 g/L) [page 4, [0026]].

The alkylsulfonic acid comprises methanesulfonic acid (page 3, [0023]) in a concentration of at least about 290 g/L (= at least 50 g/L) [page 4, [0026]].

The electrolyte further comprises an oxidation inhibitor (= an antioxidant for Sn^{2+}) [page 5, [0040]].

The electrolyte further comprises a dihydroxybenzene compound as an oxidation inhibitor (= hydroquinone) [page 5, [0040]].

The bronze deposited onto the substrate comprises at least about 60% by weight Cu (= 0.01 to 90 wt% of copper) [page 6, [0050]].

The aromatic, nonionic wetting agent is present in the electrolyte at a concentration of from about 2 to about 40 g/L (= 0.01-50 g/L) [page 4, [0034]].

Tin methanesulfonate (pages 2-3, [0014]) is present in the electrolyte in an amount of from about 5 to about 195 g/L of electrolyte (= 1-99 g/L) [page 3, [0016]], thereby providing the tin ions at a concentration of from about 2 to about 75 g/L of electrolyte (*inherent*).

Copper methanesulfonate (page 3, [0015]) is present in the electrolyte in an

amount of from about 8 to about 280 g/L of electrolyte (= 0.001-99 g/L) [page 3, [0016]], thereby providing the copper ions at a concentration of from about 2 to about 70 g/L of electrolyte (*inherent*).

The electrolyte has a pH of less than about 1 (= <1) [pages 7-10 and 12-13, Tables 1-6].

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. Denied*, 469 U.S. 851 (1984). In addition, a known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use, see *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). Further, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments, see *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), *cert. denied*, 493 U.S. 975 (1989). See MPEP § 2141.02, MPEP 2145X.D.1 and MPEP § 2123.

Electrolyte

II. Claims **40-52** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **EP 1,001,054** ('054).

EP '054 is as applied for reasons as discussed above and incorporated herein.

EP '054 also teaches:

A wetting agent selected from the group consisting of an anionic wetting agent, an aliphatic, nonionic wetting agent, and combinations thereof (page 4, [0034]; and page 5, [0035] to [0037]).

The electrolyte further comprises a gluconate (= sodium gluconate) [pages 7-10 and 12-13, Tables 1-6].

The electrolyte further comprises hydroquinone (page 5, [0040]).

The electrolyte further comprises a brightener selected from the group consisting of aromatic carbonyl compounds, α,β -unsaturated carbonyl compounds, and combinations thereof (= e.g., anisaldehyde) [page 5, [0041]].

The electrolyte has a pH of less than 1 (= <1) [pages 7-10 and 12-13, Tables 1-6].

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. Denied*, 469 U.S. 851 (1984). In addition, a known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use, see *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). Further, a reference may be relied upon for all that it would have reasonably

suggested to one having ordinary skill in the art, including nonpreferred embodiments, see *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), *cert. denied*, 493 U.S. 975 (1989). See MPEP § 2141.02, MPEP 2145X.D.1 and MPEP § 2123.

III. Claims **53-55** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **EP 1,001,054** ('054).

EP '054 teaches an aqueous acidic electrolyte containing:

(a) divalent tin ions (= stannous salt [Sn (II) salt]) at a concentration of from about 2 to about 75 g/L of electrolyte (= 1-99 g/L) [page 3, [0016]];

(b) divalent copper ions (= cupric salt [copper (II) salt]) at a concentration of from about 2 to about 70 g/L of electrolyte (= 0.001-99 g/L) [page 3, [0016]];

(c) an aromatic, nonionic wetting agent (= a nonionic surface active agent, e.g., polyoxyethylene β -naphthol ether) [page 4, [0034]] at a concentration of from about 2 to about 40 g/L of electrolyte (= at least 50 /L) [page 4, [0026]];

(d) a stabilizer, complexing agent, or mixture thereof (page 4, [0031]) at a concentration of less than about 50 g/L of electrolyte (= 1-200 g/L) [page 4, [0032]];

(e) a wetting agent selected from the group consisting of an anionic wetting agent, a nonionic, aliphatic wetting agent, and mixtures thereof (page 4, [0034]; and page 5, [0035] to [0038]) at a concentration of less than about 10 g/L of electrolyte (= 0-50 g/L) [page 5, [0039]];

(f) an oxidation inhibitor (= an antioxidant for Sn^{2+}) [page 5, [0040]] at a concentration of less than about 5 g/L of electrolyte (= 0.001-20 g/L) [page 5, [0040]];

(g) a brightener (page 5, [0041]) at a concentration of less than about 5 g/L of electrolyte (= 0.001-10 g/L) [page 5, [0041]]; and

(h) an alkylsulfonic acid (= an aliphatic sulfonic acid) [page 3, [0018]] at a concentration of at least about 140 g/L of electrolyte (= at least 50 g/L) [page 4, [0026]].

The alkylsulfonic acid comprises methanesulfonic acid (page 3, [0023]).

The alkylsulfonic acid comprises methanesulfonic acid (page 3, [0023]) in a concentration of at least about 290 g/L (= at least 50 g/L) [page 4, [0026]].

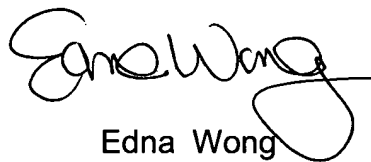
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Edna Wong", with a stylized, looping flourish at the end.

Edna Wong
Primary Examiner
Art Unit 1753

EW
December 7, 2006